QC ABSTRACT

NAME OF WORK: Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	WMM	Sieve Analysis	One Test		1	1
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
2	BM	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral Aggregate	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
3	BC	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
4	BITUMEN	Ductility	One Test		1	1
		Softening Point	One Test		1	1
		Penetration	One Test		1	1
		Flash Point	One Test		1	1
		Fire Point	One Test		1	1
5	TACK COAT	Rate of spread	One Test		1	1
6	Thermoplastic Compound	Colour	One Test		1	1
		Softening Point	One Test		1	1
		Luminance Factor	One Test		1	1
		Cracking Resistance	One Test		1	1
		Skid Resistance	One Test		1	1
		Yellow Index (For White Thermoplastic Plant)	One Test		1	1
		Drying Time	One Test		1	1
		Binder Content	One Test		1	1
		Glass Beads Content	One Test		1	1

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 07-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	05-04-22
Type of Mix	:	WMM (Wet Mix Macadam)
Date of Test	:	05-04-22
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

* The results obtained are satisfactory as per standard requirements.

Note:-

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TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 07-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	05-04-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	:	05-04-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Pecentage	24.6	

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DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 07-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	05-04-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	:	05-04-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

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TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 09-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	07-04-22
Type of Mix	:	BM-Plant (Bituminous Macadam)
Date of Test	:	07-04-22
Weight of Sample(gm)	:	5000

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	155	155	3.1	96.9	90-100
13.2	825	980	19.6	80.4	56-88
4.75	2277	3257	65.1	34.9	16-36
2.36	865	4122	82.4	17.6	4-19
0.3	425	4547	90.9	9.1	2-10
0.075	211	4758	95.2	4.8	0-8
PAN	242	5000	100.0	0.0	0

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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

Lab ID	:	**CP-RW-2022-05-04-01**	**Date: 10-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.	
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)	
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157	
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	07-04-22	
Type of Mix	:	BM (Bituminous Macadam)	
Date of Test	:	07-04-22	

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	10.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	11.5		
Strength	Aggregate Impact Value	22.1	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.52	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.19	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 10-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	07-04-22
Type of Mix	:	BM(Bitumnous Macadam)
Date of Test	:	07-04-22
Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	99.0	1.0	98.5	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

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TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 10-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	07-04-22
Type of Mix	:	BM (Bituminous Mecadam)
Date of Test	:	07-04-22

The results of the tests conducted on the Bituminous Macadam mix sample are as follow

SLNo	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.31	11.47	9KN(Min)
2	Marshal flow at 60°C, mm	3.52	3.62	2-4
3	Percent air Voids	4.12	4.25	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.52	13.99	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.42	69.55	65-75
6	Density, g/cc	2.41	2.42	–

* The results obtained are satisfactory as per standard requirements.

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Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 07-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer's Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	05-04-22
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)
Date of Test	:	05-04-22

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**65**	60 to 70
2	Softening Point, °C	**52.2**	Min. 40°C
3	Ductility, cm	**99**	Min. 75cm
4	Flash point, °C	**252**	Min. 220°C
	Fire point, °C	**284**	

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TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 10-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-22
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of Test	:	08-04-22
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	97	97	1.9	98.1	90-100
9.5	625	722	14.4	85.6	70-88
4.75	902	1624	32.5	67.5	53-71
2.36	578	2202	44.0	56.0	42-58
1.18	544	2746	54.9	45.1	34-48
0.6	522	3268	65.4	34.6	26-38
0.3	512	3780	75.6	24.4	18-28
0.15	422	4202	84.0	16.0	12-20
0.075	410	4612	92.2	7.8	4-10
PAN	388	5000	100	0.0	0

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 11-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-22
Type of Mix	:	BC(Bitumenous Concrete)
Date of Test	:	08-04-22

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	97.7	Minimum Retained Coating 95%
2	97.0	3.0		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

Note:-
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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 11-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-22
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	08-04-22

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	13.1	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	12.7		
Strength	Aggregate Impact Value	22.7	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.55	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.23	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

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Quality Manager

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End of Report

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 11-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-22
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	08-04-22

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.55	11.42	10KN(min)
2	Marshal flow at 60°C, mm	3.53	3.50	2-4
3	Percent air Voids	4.92	4.47	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.21	13-15
5	Percent Voids filled with Bitumen(VFB %)	72.05	72.23	65-75
6	Density, g/cc	2.24	2.25	–

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 12-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	11-04-22
Type of Mix	:	BM (Bituminous Macadam)
Date of Test	:	11-04-22

Sl.no	**Description**	**Index**	**Trail 1**	**Trail 2**
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	482	483
3	Bitumen percentage	$\frac{A-B}{A}$ X 100	3.6	3.40
4	Average percentage	%	3.50	

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Lab ID : **CP-RW-2022-05-04-01** **Date: 12-04-22**

AFTER EXTRACTION(Trail-1)

Weight of Sample : 482 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	22	22	4.6	95.4	90-100
13.2	142	164	34.0	66.0	56-88
4.75	185	349	72.4	27.6	16-36
2.36	54	403	83.6	16.4	4-19
0.3	35	438	90.9	9.1	2-10
0.075	28	466	96.7	3.3	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample : 483 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	25	25	5.2	94.8	90-100
13.2	172	197	40.8	59.2	56-88
4.75	135	332	68.7	31.3	16-36
2.36	72	404	83.6	16.4	4-19
0.3	38	442	91.5	8.5	2-10
0.075	31	473	97.9	2.1	0-8

* The results obtained are satisfactory as per standard requirements.

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DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 13-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Sample Condition	:	Satisfactory
Date of Receipt	:	12-04-22
Type of Mix	:	Tack coat
Date of Test	:	12-04-22

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.805	0.772
5	Weight of tack Coat (d=c-b)	Kg	0.025	0.024
6	Rate of spread of tack coat	Kg/sq.m	0.278	0.267
7	Average	Kg/sq.m	0.272	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Date: 13-04-22

Lab ID	:	CP-RW-2022-05-04-01
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	12-04-22
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	12-04-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	468	469
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.40	6.20
4	Average percentage	%	6.3	

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HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Lab ID : CP-RW-2022-05-04-01 Date: 13-04-22

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 468

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	8	8	1.7	98.3	90-100
9.5	51	59	12.6	87.4	70-88
4.75	102	161	34.4	65.6	53-71
2.36	85	246	52.6	47.4	42-58
1.18	31	277	59.2	40.8	34-48
0.6	20	297	63.5	36.5	26-38
0.3	51	348	74.4	25.6	18-28
0.15	43	391	83.5	16.5	12-20
0.075	42	433	92.5	7.5	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	10	10	2.1	97.9	90-100
9.5	49	59	12.6	87.4	70-88
4.75	105	164	35.0	65.0	53-71
2.36	88	252	53.7	46.3	42-58
1.18	35	287	61.2	38.8	34-48
0.6	22	309	65.9	34.1	26-38
0.3	49	358	76.3	23.7	18-28
0.15	33	391	83.4	16.6	12-20
0.075	41	432	92.1	7.9	4-10

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Format No: CP/TF/01

TEST REPORT ON THERMOPLASTIC COMPOUND

Lab ID	:	**CP-RW-2022-05-04-01** **Date: 20-04-22**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at KVS Layout, 1st & 2nd Cross, Dhanalakshmi Layout in Ward No.09(Vidyaranyapura)
Agency	:	M/s SMLP Asphalts Pro B.B Umesha No.385, Bettahalasuru Post, Bangalore-562157
Customer's Reference	:	BBMP/EE/BTP/WO/22/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	15-04-22
Sample Type	:	Thermoplastic Compound
Reference to BIS codes	:	ASTM D36/BS-3262-(Part-I)
Date of Test	:	15-04-22

Test Results

Sl.no	Name of Test	Result	Requirements as per Morth 803
1	Colour	**White**	White/Yellow
2	Softening Point	**108°C - 119°C**	102.5±9.5°C as Per ASTM D:36
3	Luminance Factor	**Sartisfactory**	White: Daylight Luminanceat 45-65 Percent min, as per AASHTO M:249. Yellow: Daylight lumunanace at 45-45 percent min, as per AASHTO M:249
4	Cracking Resistance	**No Cracks found on application**	The Material shall show no Cracks on application
5	Skid Resistance	**51**	Not Less than 45 as per BS:6044
6	Yellow Index (For White Thermoplastic Plant)	**0.07**	Not More than 0.12 as per AASHTO M:249
7	Drying Time	**14**	When Applied at a temperature specified by the manufacture and to the required thickness, the material shall mset to heat traffic in not more than 15 minutes
8	Binder Content % by Weight	**20%**	White & yellow 18 minutes as per Section 800 in Table 800-9
9	Glass Beads Content % by Weight	**30**	30-30

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